

§Appl. No. 10/017,393
Amdt. dated March 21, 2005
Reply to Office Action of, December 23, 2004

Listing of Claims:

Claim 1 (Previously Presented) An isolated human H2R polynucleotide which codes without interruption for an amino acid sequence set forth in SEQ ID NO 2, or a complete complement thereto.

Claim 2 (Currently Amended) An isolated human H2R polynucleotide comprising, a polynucleotide sequence having 95% or more sequence identity along the entire length of the polynucleotide sequence from nucleotide positions 103-1368 as set forth in SEQ ID NO 1 and which codes without interruption for H2R, or a complete complement thereto, wherein said polynucleotide hybridizes under high stringency conditions comprising 5X SSC, 0.5% SDS, 100 µg/ml denatured salmon sperm DNA and 50% formamide, at 42°C to the complete complement of the sequence set forth in SEQ ID NO:1, and wherein said polynucleotide codes for a polypeptide that, upon activation by histamine, leads to the accumulation of cAMP.

Claim 3 (Currently Amended) An isolated H2R polynucleotide, comprising:
a polynucleotide coding for amino acids 360-422 of SEQ ID NO 2, or a polynucleotide fragment thereof comprising at least 25 nucleotides, specific fragments thereof which hybridize specifically under high stringent conditions to the polynucleotide sequence from nucleotide positions 1180-1368 as set forth in SEQ ID NO:1, or complete complements thereto, wherein said fragment can be used as a polymerase chain reaction primer.

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Claim 4 (Previously Presented) An isolated H2R polynucleotide of claim 3, consisting of: a polynucleotide coding for amino acids 360-422 of SEQ ID NO 2, or a complete complement thereto.

Claim 5 (Cancelled)

Claim 6 (Cancelled)

Claim 7 (Cancelled)

Claim 8 (Cancelled)

Claim 9 (Cancelled)

Claim 10 (Cancelled)

Claim 11 (Cancelled)

Claim 12 (Cancelled)

Claim 13 (Previously Presented) An isolated transformed mammalian cell comprising:
a polynucleotide construct comprising a human H2R polynucleotide of claim 2
operatively linked to an expression control sequence.

Claim 14 (Currently Amended) An isolated transformed cell of claim 13, wherein said human H2R polynucleotide has the polynucleotide sequence from nucleotides 103-1368 as sequence set forth in SEQ ID 1.

Claim 15 (Previously Presented) An isolated transformed cell of claim 13, wherein said human H2R polynucleotide has the amino acid sequence set forth in SEQ ID 2.

Claim 16 (Previously Presented) An isolated transformed cell of claim 13, wherein said expressible human H2R polynucleotide is integrated into the chromosome of said cell.

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Claim 17 (Cancelled)

Claim 18 (Previously Presented) An isolated human H2R polynucleotide of claim 1, comprising the polynucleotide sequence from nucleotide positions 103-1368 as set forth in SEQ ID NO:1, or a complete complement thereto.

Claim 19 (Currently Amended) An isolated H2R polynucleotide of claim 1 3, wherein said polynucleotide comprises the polynucleotide sequence from nucleotide positions 1180-1368 as set forth in SEQ ID NO:1.

Claim 20 (New) A method of producing a human H2R polynucleotide, comprising:
comprising expressing a polynucleotide of claim 1 operatively linked to an expression control sequence under conditions effective to achieve production of said H2R coded for by said polynucleotide.

Claim 21 (New) A method of producing a human H2R polynucleotide, comprising:
comprising expressing a polynucleotide of claim 2 operatively linked to an expression control sequence under conditions effective to achieve production of said H2R coded for by said polynucleotide.

Claim 22 (New) A method of producing a human H2R polynucleotide, comprising:
comprising expressing a polynucleotide of claim 18 operatively linked to an expression control sequence under conditions effective to achieve production of said H2R coded for by said polynucleotide.

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Claim 23 **(New)** A method of producing a human H2R polynucleotide, comprising:
 comprising expressing a polynucleotide of claim 19 operatively linked to an expression
control sequence under conditions effective to achieve production of said H2R coded for by said
polynucleotide.